

# 对3850 QoS配置MQC转换的3750个MLS

## 目录

[简介](#)

[先决条件](#)

[要求](#)

[使用的组件](#)

[区别的概述在3750 Mls qos和3850 MQC QoS之间](#)

[3750 QoS型号](#)

[3850 QoS型号](#)

[功能详细信息对照表](#)

[入口](#)

[出口](#)

[普通的QoS显示命令](#)

[3750](#)

[3850](#)

[3750到3850 QoS转换示例](#)

[示例 1：QoS禁用](#)

[3750](#)

[3850](#)

[示例 2：QoS Enable \(event\)托拉斯COS](#)

[3750](#)

[3850](#)

[示例 3：QoS Enable \(event\)托拉斯DSCP](#)

[3750](#)

[3850](#)

[示例 4：与有集合策略的接口的QoS Enable \(event\)](#)

[3750](#)

[3850](#)

[示例 5：没有Mls qos trust的QoS Enable \(event\)在接口](#)

[3750](#)

[3850](#)

[示例 6：QoS启用与崔凡吉莱CoS/DSCP队列映射](#)

[3750](#)

[3850](#)

[示例7：MLS启用与DSCP变化](#)

[3750](#)

[3850](#)

[示例8：与聚集管制的Mls qos Enable \(event\)](#)

[3750](#)

[3850](#)

[示例9 : 与下来管制马克的MLS Enable \(event\)](#)

[3750](#)

[3850](#)

[示例10 : 与队列极限配置的Mls qos Enable \(event\)](#)

[3750](#)

[3850](#)

[示例11 : 与队列缓冲区配置的Mls qos Enable \(event\)](#)

[3750](#)

[3850](#)

[示例12 : 与带宽配置的Mls qos Enable \(event\)](#)

[3750](#)

[3850](#)

[示例13 : Mls qos Enable \(event\)以优先级](#)

[3750](#)

[3850](#)

[示例14 : 与成型机配置的Mls qos Enable \(event\)](#)

[3750](#)

[3850](#)

[示例15 : 与带宽的Mls qos Enable \(event\)](#)

[3750](#)

[3850](#)

[示例16 : HQoS](#)

[3750](#)

[3850](#)

## 简介

本文描述3750多层交换服务质量(QoS)和思科Catalyst 3850交换机模块化QoS CLI (MQC) QoS之间的基本区别。它通过配置示例也提供关于转换的详细信息。本文只适用于有线的QoS。本文是为负责网络设计、implementation或者administation包括一独立思科Catalyst 3850交换机或思科Catalyst 3850交换机堆叠，指交换机的网络专业人员。

## 先决条件

### 要求

Cisco 建议您了解以下主题：

- Cisco IOS®软件
- MLS和MQC QoS概念与术语

### 使用的组件

本文档不限于特定的软件和硬件版本。

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

## 区别的概述在3750 Mls qos和3850 MQC QoS之间

QoS的配置在3850线路的改善的归结于其MQC (通用QoS配置型号)配置的实施而不是从交换机3750条和3560条线路的旧有Mls qos (根据平台的QoS配置)命令。



**2K/3K**  
(2960/3750)



**NG3K**  
(3650/3850)

主要区别在此表里突出显示：

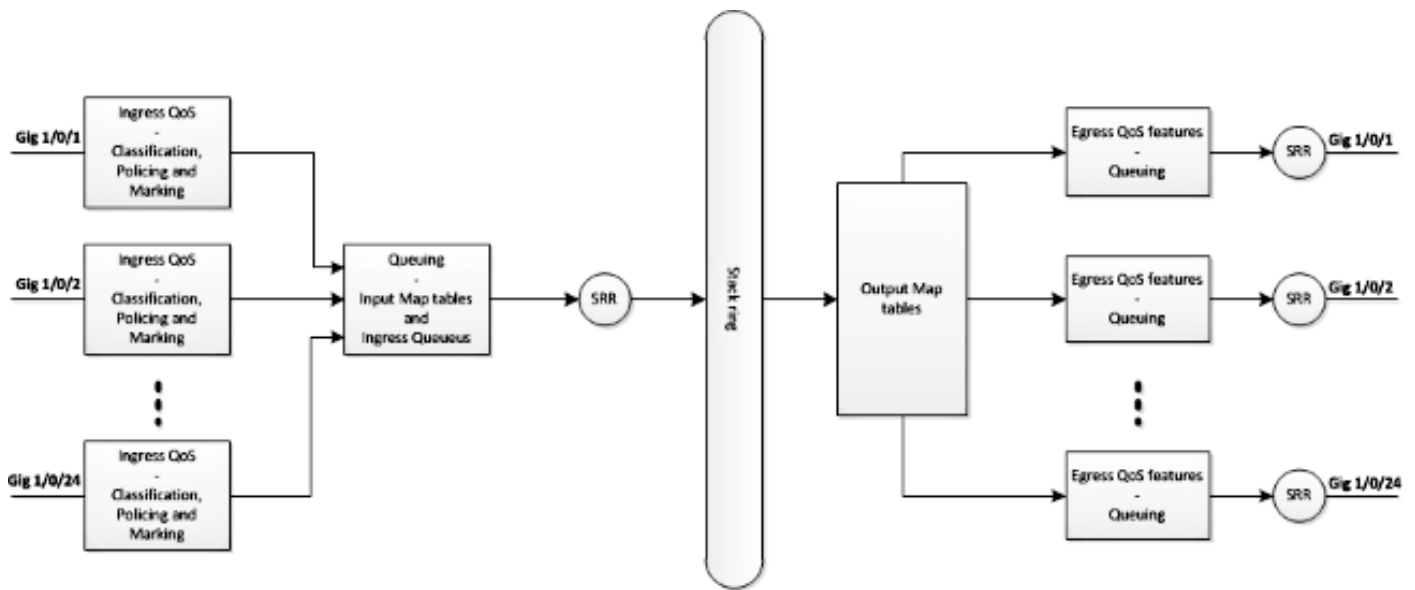
交换机类型	3750	3850
基本结构	MLS	MQC
QoS默认	已禁用	已启用
全局配置	支持Mls qos 支持一些MQC在入口	不支持Mls qos 支持MQC [class-map , policy map]
接口设置	支持Mls qos设置和一些在入口的MQC CLI	附加策略对接口
端口信任默认	已禁用	已启用
波尔特入口	分类/管制/标记 排队	分类/管制/标记 [NO ingress Queuing!]
波尔特出口	排队	分类/管制/标记/排队
Switch Virtual Interface (SVI)入口	分类/管制/标记	分类/标记
SVI出口	无	分类/标记

认可在QoS方法的主要基本更改是重要的。

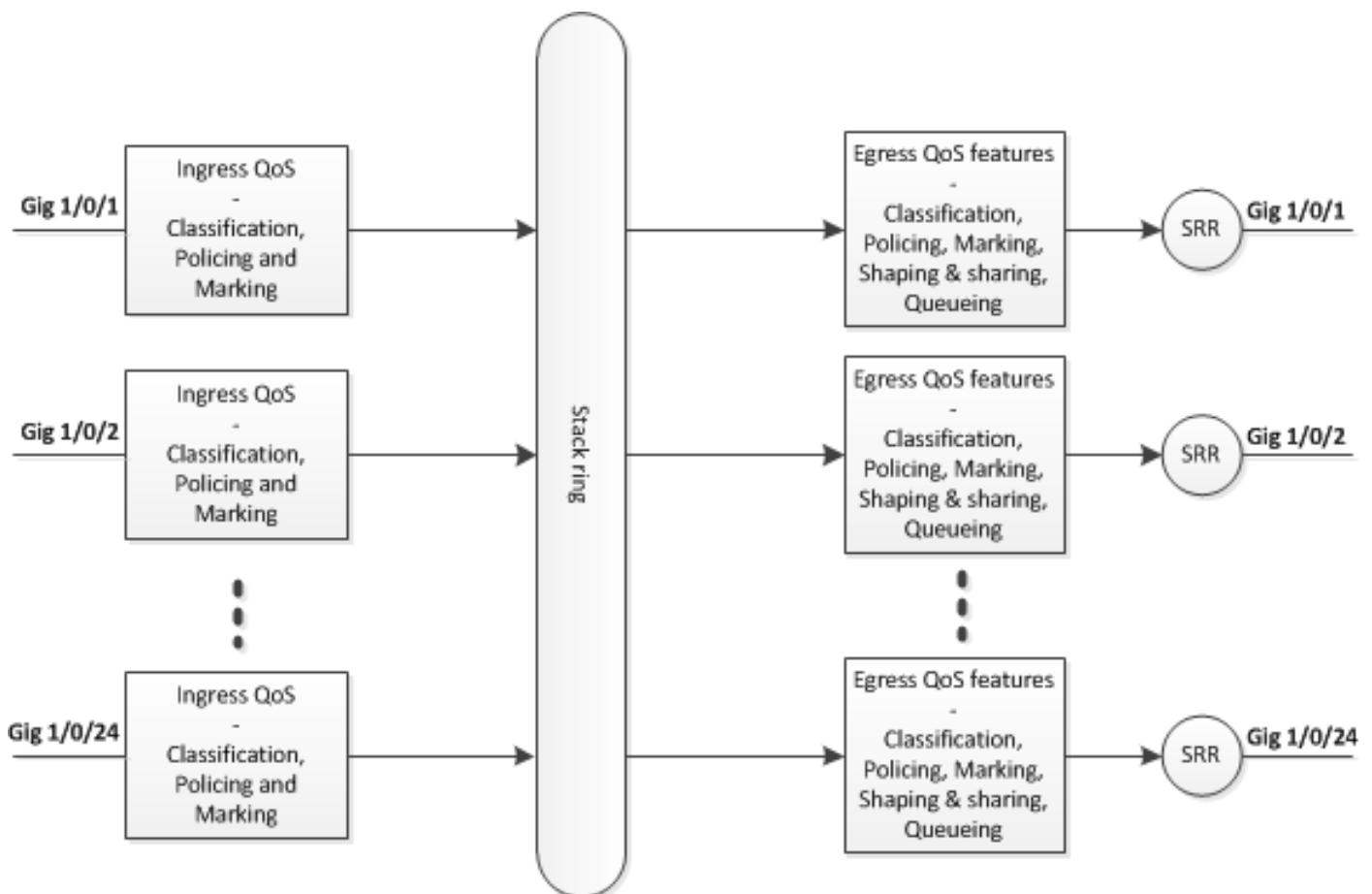
默认情况下在3750，QoS禁用，而在3850，启用。并且为了保留Layer2 (在3750平台的L2)/Layer必须应用3 (L3) QoS标记，信任配置。

一旦3850，除非随一个特定策略映射的应用程序在入口或出口接口的改变它所有信息包默认情况下是委托(L2/L3 QoS标记保留)。

## 3750 QoS型号



## 3850 QoS型号



## 功能详细信息对照表

入口

功能	3750	3850
分类	类映射匹配差分服务代码点，优先(Prec)，访问控制表(ACL)支持全部匹配和match-any	类映射业务类别(CoS)，Prec DSCP，ACL并且VLAN支持仅match-any
标记	[unconditional Set dscp和Prec set]	设置Cos、Prec、DSCP和Qos
修正	DSCP变化	类别默认值表映射
修正减价	1r2c管制超出减价[Only supports DSCP]	1r2c和2r3c管制超出并且违犯减价
聚集管制入口队列分层的QoS (HQoS)	支持在3750在3750x仅支持，但是不支持VLAN根据仅HQoS	[Supports CoS，DSCP，Pre Agg管制[one type of HQoS]不支持基于端口的Agg管制和每VLAN

## 出口

功能	3750	3850
无的分类支持排队的操作	不支持	Cos，Prec，DSCP，C并且VLAN
排队操作的分类支持	Cos和DSCP	Cos、Prec、DSCP和Qo
标记	不支持	设置Cos、Prec和DSCP
修正	不支持	1r2c，2r3c与超出/下来
队列和队列类型最大数	1P3Q3T [4 queues]加快queue->优先级队列	2P6Q3T [up to 8 queues
出口队列	共享模式、形状模式、队列极限、优先级和队列缓冲区	带宽、bandwidth remain
HQoS	不支持	HQoS : Agg管制、PV、成型机

## 普通的QoS显示命令

### 3750

输入显示命令：

```
show run class-map [name_of_class-map]
show run policy-map [name of policy-map]
show policy-map int [interface_name]
```

常规显示命令：

```
show mls qos maps
show mls qos maps <options>
show mls qos queue-set
show mls qos interface [interface_name] queuing
show platform port-asic stats drop [interface_name] statistics
show mls qos aggregate-policer
```

## 3850

```
show run class-map [name_of_class-map]
show run policy-map [name_of_policy-map]
show table-map [name_of_table-map]
show run policy-map [name_of_policy-map]
show policy-map int [interface_name]
show platform qos policies port sw [sw#]
show platform qos queue config interface_type [interface_name]
show platform qos queue stats interface_type [interface_name]
```

## 3750到3850 QoS转换示例

QoS设置	3750 [Global]	3750 [Interface]
QoS禁用	没有Mls qos	两个队列 Control->队列(2) 数据->队列(4) a) Mls qos trust cos可 b) Mls qos trust DSCP c) 输入策略以集合操作标记DSCP值 d) 没有Mls qos trust设置[both CoS/DSCP will be
托拉斯或集在入口和出口 根据入口的排队操作 托拉斯或集	MLS QOS	A、b、c和d将使用对应的新建的映射 接口需要配置 Mls qos trust DSCP Mls qos dscp-mutation [name] 需要interface-level配置 附加的策略策略建立接口，超出不是丢弃，全局 [Input]
CoS/DSCP队列映射	Mls qos共享循环法(SRR) -队列 输出[CoS-map/DSCP-map]	设置队列集[2] [默认队列集1]
DSCP变化	Mls qos DSCP变化	
Agg管制	aggregatepolicing的Mls qos	
Police减价	Mls qos map管辖DSCP对[63]的 [10] [11] Mls qos队列集输出了[1]阈值[1] [100] [100] [50] [200] 1->队列集1	
队列极限	<1-> queue1 阈值1 阈值2 保留缓冲区 最大门限	
队列缓冲区	Mls qos队列集输出[1]缓冲区 [15] [25] [40] [20]	接口设置队列集
共享/带宽	MLS QOS	接口级设置 “Srr队列带宽共享1 30 35 5” [Share mode]
优先队列 [Expedite queue]	MLS QOS	接口级设置“priority-queue”，这将做对应的队列
成型机	MLS QOS	Srr队列带宽形状[shape mode]
波尔特成型机	MLS QOS	Srr队列带宽限制
HQoS	MLS QOS	SVI [attach policy to SVI]和接口需要配置“Mls c

## 示例 1 : QoS禁用

### 3750 (全局配置) 3750 (接口)

没有Mls qos

两队列[控制一队列2，数据一个队列4]

### 3850

没有策略的出口

[在queue1的控制队列2]的pkts和数据包

### 3750

```
3750#show mls qos
```

```
QoS is disabled <- disable
QoS ip packet dscp rewrite is enabled
```

```
3750#show mls qos interface gig1/0/1 statistics | b output queues enqueued
```

```
output queues enqueued:
queue: threshold1 threshold2 threshold3
```

```
-----
queue 0: 4 0 0
queue 1: 0 0 0 <- control
queue 2: 0 0 0
queue 3: 0 0 0 <- data
```

```
output queues dropped:
queue: threshold1 threshold2 threshold3
```

```
-----
queue 0: 0 0 0
queue 1: 0 0 0 <- control
queue 2: 0 0 0
queue 3: 0 0 0 <- data
```

```
Policer: Inprofile: 0 OutofProfile: 0
```

### 3850

```
3850#show ru int gig1/0/1
```

```
interface GigabitEthernet1/0/1
end
```

```
3850#show platform qos queue config gigabitEthernet 1/0/1 sw 1
```

```
DATA Port:21 GPN:1 AFD:Disabled QoSMap:0 HW Queues: 168 - 175
DrainFast:Disabled PortSoftStart:1 - 600
```

```
-----
DTS Hardmax Softmax PortSMin GblsMin PortStEnd
```

```
-----
0 1 5 120 6 480 0 0 0 0 0 800 <- control
1 1 4 0 7 720 2 480 2 180 2 800 <- data
2 1 4 0 5 0 0 0 0 0 0 800
3 1 4 0 5 0 0 0 0 0 0 800
4 1 4 0 5 0 0 0 0 0 0 800
5 1 4 0 5 0 0 0 0 0 0 800
6 1 4 0 5 0 0 0 0 0 0 800
7 1 4 0 5 0 0 0 0 0 0 800
```

```
Priority Shaped/shared weight shaping_step
```

```
-----
0 0 Shared 50 0
1 0 Shared 75 0
2 0 Shared 10000 179
3 0 Shared 10000 0
4 0 Shared 10000 0
5 0 Shared 10000 0
```

```
6 0 Shared 10000 192
7 0 Shared 10000 0
```

```
Weight0 Max_Th0 Min_Th0 Weigth1 Max_Th1 Min_Th1 Weight2 Max_Th2 Min_Th2
-----
0 0 478 0 0 534 0 0 600 0
1 0 573 0 0 641 0 0 720 0
2 0 0 0 0 0 0 0 0 0
3 0 0 0 0 0 0 0 0 0
4 0 0 0 0 0 0 0 0 0
5 0 0 0 0 0 0 0 0 0
6 0 0 0 0 0 0 0 0 0
7 0 0 0 0 0 0 0 0 0
```

## 示例 2 : QoS Enable (event)托拉斯COS

**3750 (全局)** **3750 (接口)** **3850**  
**MLS QOS** 接口“Mls qos trust cos可” (根据默认Cos映射对队 根据Cos的出口排队策略(入口需要设置信任集1)

### 3750

```
Global config:
3750(config)#mls qos
```

```
Interface config:
interface GigabitEthernet1/0/1
mls qos trust cos
```

Related show cli:

```
3750#sh mls qos
QoS is enabled
QoS ip packet dscp rewrite is enabled
```

```
3750#sh mls qos int gig1/0/1
GigabitEthernet1/0/1
trust state: trust cos
trust mode: trust cos
trust enabled flag: ena
COS override: dis
default COS: 0
DSCP Mutation Map: Default DSCP Mutation Map
Trust device: none
qos mode: port-based
```

```
3750 #show mls qos maps cos-output-q
Cos-outputq-threshold map:
cos: 0 1 2 3 4 6 7
-----
queue-threshold: 2-1 2-1 3-1 3-1 4-1 1-1 4-1 4-1
```

Note: cos value 0 maps to 2-1 [queue-set1 : queue2 threshold 1]

### 3850



Ingress: apply policy-map trust-cos  
Egress: create class based on cos and have queuing action for each class

```
Ingress policy:  
3850#show run policy-map trust-cos  
class class-default  
set cos cos table default
```

```
3850#show table-map default  
Table Map default  
default copy
```

```
Egress policy:  
3850#show run policy-map example2  
class cos5  
bandwidth percent 15  
class cos0_1  
bandwidth percent 25  
class cos2_3  
bandwidth percent 40  
class cos4_6_7  
bandwidth percent 20
```

```
3850#show run class-map cos5  
class-map match-any cos5  
match cos 5
```

```
3850#show run class-map cos0_1  
class-map match-any cos0_1  
match cos 0  
match cos 1
```

```
3850#show run class-map cos2_3  
class-map match-any cos2_3  
match cos 2  
match cos 3
```

```
3850#show run class-map cos4_6_7  
class-map match-any cos4_6_7  
match cos 4  
match cos 6  
match cos 7
```

### 示例 3 : QoS Enable (event)托拉斯DSCP

**3750 (全局) 3750 (接口)**

**MLS QOS** 接口“Mls qos trust DSCP” [根据默认DSCP映射对队列集1]

**3850**

**输入默认信任DSCP**

**根据DSCP的出口排队策略**

**3750**

```
config  
3750(config)#mls qos <- Global  
interface GigabitEthernet1/0/1 <- Interface  
mls qos trust dscp
```

```
3750#sh mls qos int gig1/0/1  
GigabitEthernet1/0/1  
trust state: trust dscp
```

```
trust mode: trust dscp
trust enabled flag: ena
COS override: dis
default COS: 0
DSCP Mutation Map: Default DSCP Mutation Map
Trust device: none
qos mode: port-based
```

```
3750#show mls qos maps dscp-output-q
```

```
Dscp-outputq-threshold map:
d1 :d2 0 1 2 3 4 5 6 7 8 9
```

```
-----
0 : 02-01 02-01 02-01 02-01 02-01 02-01 02-01 02-01 02-01 02-01
1 : 02-01 02-01 02-01 02-01 02-01 02-01 03-01 03-01 03-01 03-01
2 : 03-01 03-01 03-01 03-01 03-01 03-01 03-01 03-01 03-01 03-01
3 : 03-01 03-01 04-01 04-01 04-01 04-01 04-01 04-01 04-01 04-01
4 : 01-01 01-01 01-01 01-01 01-01 01-01 01-01 01-01 04-01 04-01
5 : 04-01 04-01 04-01 04-01 04-01 04-01 04-01 04-01 04-01 04-01
6 : 04-01 04-01 04-01 04-01
```

### 3850

**Ingress: default trust dscp, no policy needed**

**Egress: use dscp as classification and add queuing action based on customer need**

One Sample config:

Policy-map:

```
3850#show run policy-map dscp-shape
```

```
class dscp56
```

```
shape average percent 10
```

```
class dscp48
```

```
shape average percent 11
```

```
class dscp40
```

```
shape average percent 12
```

```
class dscp32
```

```
shape average percent 13
```

Class-map:

```
3850#show run class-map dscp56
```

```
class-map match-any dscp56
```

```
match dscp cs7
```

```
3850#show run class-map dscp48
```

```
class-map match-any dscp48
```

```
match dscp cs6
```

```
3850#show run class-map dscp40
```

```
class-map match-any dscp40
```

```
match dscp cs5
```

```
3850#show run class-map dscp32
```

```
class-map match-any dscp32
```

```
match dscp cs4
```

### 示例 4：与有集合策略的接口的QoS Enable (event)

**3750 (全局) 3750 (接口)**

**MLS QOS** 接口输入策略以集合操作标记CoS/DSCP值  
[Marked value will be used for egress mapping]

**3850**

要进行排队映射的需要明确出口策略

## 3750

```
3750#show run class-map dscp-1
class-map match-any dscp-1
match ip dscp 1
```

```
c3750#show run policy-map set-dscp-63
class dscp-1
set dscp 63
```

```
3750#show run int f7/0/2
interface FastEthernet7/0/2
mls qos trust dscp
service-policy input set-dscp-63
```

```
3750#show policy-map int f7/0/2
FastEthernet7/0/2
```

Service-policy input: set-dscp-63

Class-map: dscp-1 (match-any)  
0 packets, 0 bytes  
5 minute offered rate 0 bps, drop rate 0 bps  
Match: ip dscp 1

Class-map: class-default (match-any)  
0 packets, 0 bytes  
5 minute offered rate 0 bps, drop rate 0 bps  
Match: any  
0 packets, 0 bytes  
5 minute rate 0 bps

**Note:** Pkts come in interface fa7/0/2, dscp1 will be marked to dscp63 which mapping based on the existing mapping table, other pkts will retain original dscp value mapping accordingly

## 3850

Input will be same as 3750 config

**Egress:** will add queuing action under class dscp-63

One sample config:

```
3850#show run policy-map dscp63-queuing
class dscp63
bandwidth percent 50
```

```
3850#show class-map dscp63
Class Map match-any dscp63
```

Match dscp 63

## 示例 5：没有Mls qos trust的QoS Enable (event)在接口

**3750 (全局) 3750 (接口)**

**MLS QOS** 接口设置不是Mls qos trust CoS/DSCP [CoS/DSCP将设置为0]

**3850**

与类别默认值的接口输入策略

Set dscp 0，与类DSCP0的输出策略与排队操作

## 3750

```
Global:
c3750(config)#mls qos
```

```
Interface:
interface GigabitEthernet2/0/45
!
```

## 3850

```
Input policy:
c3850#show run policy-map example5-input
class class-default
set dscp default
```

```
Output policy:
c3850#show run policy-map example5-output
class dscp0
shape average percent 10 <- queuing action based on customer need
```

```
Attach to the ingress port:
c3850#show run int gig1/0/1
interface GigabitEthernet1/0/1
service-policy input example5-input
```

```
Attach to the egress port:
c3850#show ru int gig1/0/2
interface GigabitEthernet1/0/2
service-policy output example5-output
```

## 示例 6 : QoS启用与崔凡吉莱CoS/DSCP队列映射

### 3750 (全局)

#### Mls qos Srr队列映射设置

(Mls qos队列输出[Cos映射队列[1]阈值[3] [4 5]) [Cos 4和5将是地图对queue1阈值3]

### 3750 (接口)

#### A、b、c和d将使用新的映射表

### 3850

#### 与排队操作的出口明确

## 3750

```
Before config:
3750#show mls qos maps cos-output-q
Cos-outputq-threshold map:
cos: 0 1 2 3 4 5 6 7
-----
queue-threshold: 2-1 2-1 3-1 3-1 4-1 1-1 4-1 4-1
```

```
User config mapping:
3750(config)#mls qos srr-queue output cos-map queue 3 threshold 3 0
```

```
New mapping table after config
3750#show mls qos maps cos-output-q
Cos-outputq-threshold map:
cos: 0 1 2 3 4 5 6 7
-----
queue-threshold: 3-3 2-1 3-1 3-1 4-1 1-1 4-1 4-1
```

## 3850

**Input : need apply trust-cos policy:**

```
3850#show run policy-map trust-cos
class class-default
set cos cos table default
```

```
3850#show table-map default
```

```
Table Map default
default copy
```

**Egress policy:**

Before changing mapping:

Sample config:

```
3850#show run policy-map example2
```

```
class cos5
bandwidth percent 15
class cos0_1
bandwidth percent 25
class cos2_3
bandwidth percent 40
class cos4_6_7
bandwidth percent 20
```

```
3850#show run class-map cos5
```

```
class-map match-any cos5
match cos 5
```

```
3850#show run class-map cos0_1
```

```
class-map match-any cos0_1
match cos 0
match cos 1
```

```
3850#show run class-map cos2_3
```

```
class-map match-any cos2_3
match cos 2
match cos 3
```

```
3850#show run class-map cos4_6_7
```

```
!
class-map match-any cos4_6_7
match cos 4
match cos 6
match cos 7
```

**After mapping changing , corresponding sample config:**

```
3850#show run policy-map example6
```

```
class cos5
bandwidth percent 15
class cos1
bandwidth percent 25
class cos0_2_3
bandwidth percent 40
class cos4_6_7
bandwidth percent 20
```

```
3850#show class-map cos5
```

```
Class Map match-any cos5 (id 25)
Match cos 5
```

```
3850#show run class-map cos1
```

```
class-map match-any cos1
match cos 1
```

```
3850#show run class-map cos0_2_3
class-map match-any cos0_2_3
match cos 0
match cos 2
match cos 3
```

```
3850#show run class-map cos4_6_7
class-map match-any cos4_6_7
match cos 4
match cos 6
match cos 7
```

## 示例7 : MLS启用与DSCP变化

**3750 (全局)**

**Mls qos DSCP变化**

**3750 (接口)**

接口需要设置Mls qos trust DSCP  
Mls qos dscp-mutation命名[name is defined in global]

**3850**

与映射不同的DSCP的表映射的接口输入

### 3750

#### Global config :

```
3750(config)#mls qos map dscp-mutation dscp-mutation 0 1 to 63
3750(config)#mls qos map dscp-mutation dscp-mutation 2 3 to 62
```

#### Global show cli:

```
c3750#show mls qos maps dscp-mutation
```

#### Dscp-dscp mutation map:

##### dscp-mutation:

```
d1 : d2 0 1 2 3 4 5 6 7 8 9
```

```
-----
0 : 63 63 62 62 04 05 06 07 08 09
1 : 10 11 12 13 14 15 16 17 18 19
2 : 20 21 22 23 24 25 26 27 28 29
3 : 30 31 32 33 34 35 36 37 38 39
4 : 40 41 42 43 44 45 46 47 48 49
5 : 50 51 52 53 54 55 56 57 58 59
6 : 60 61 62 63
```

#### Dscp-dscp mutation map:

##### Default DSCP Mutation Map:

```
d1 : d2 0 1 2 3 4 5 6 7 8 9
```

```
-----
0 : 00 01 02 03 04 05 06 07 08 09
1 : 10 11 12 13 14 15 16 17 18 19
2 : 20 21 22 23 24 25 26 27 28 29
3 : 30 31 32 33 34 35 36 37 38 39
4 : 40 41 42 43 44 45 46 47 48 49
5 : 50 51 52 53 54 55 56 57 58 59
6 : 60 61 62 63
```

#### Interface config:

```
interface FastEthernet7/0/3
description trust dscp
mls qos trust dscp
mls qos dscp-mutation dscp-mutation
```

```
c3750#show mls qos int f7/0/3
```

```
FastEthernet7/0/3
trust state: trust dscp
trust mode: trust dscp
trust enabled flag: ena
COS override: dis
default COS: 0
DSCP Mutation Map: dscp-mutation
Trust device: none
qos mode: port-based
```

**Interface using default dscp-table:**

```
c3750#show mls qos int g3/0/1
GigabitEthernet3/0/1
trust state: not trusted
trust mode: not trusted
trust enabled flag: ena
COS override: dis
default COS: 0
DSCP Mutation Map: Default DSCP Mutation Map
Trust device: none
qos mode: port-based
```

## 3850

**Ingress : apply policy with dscp table-map**  
**Egress: classify on new dscp value with queuing action**

```
Ingress:
3850#show table-map dscp-2-dscp
Table Map dscp-2-dscp
from 0 to 63
from 1 to 63
from 2 to 62
from 3 to 62
default copy
3850#show run policy-map example7-input
class class-default
set dscp dscp table dscp-2-dscp
```

```
Egress:
3850#show run policy-map example7-output

class dscp63
shape average percent 20 [ queuing action based on the user need]
class dscp62
shape average percent 30 [queuing action based on user need]
```

## 示例8 : 与聚集管制的Mls qos Enable (event)

<b>3750 (全局)</b>	<b>3750 (接口)</b>	<b>3850</b>
<b>Mls qos聚集管制</b>		
[All classes using the agg-policing will share the policing rate]	需要接口级设置	Agg管制(H
Mls qos aggregate-policer <b>agg_traffic 8000</b>	建立接口有有agg_traffic作为agg策略器名称的策略	
8000超额动作丢弃		

## 3750

```
Global:
mls qos aggregate-policer agg_traffic 8000 8000 exceed-action drop
```

```
Access-list:
access-list 1 permit 192.168.0.0 0.0.0.255
access-list 2 permit 10.0.0.0 0.0.0.255
```

```
Class-map:
class-map match-all agg1
match access-group 1
class-map match-all agg2
match access-group 2
```

```
Policy-map:
policy-map agg_policer
class agg1
set dscp 40
police aggregate agg_traffic
class agg2
set dscp 55
police aggregate agg_traffic
```

Note: class agg1 and agg2 will share the same policing rate

### 3850

```
policy-map agg_police
class class-default
police cir 8000
service-policy child
```

```
policy-map child
class agg1
set dscp 40
class agg2
set dscp 55
```

### 示例9：与下来管制马克的MLS Enable (event)

3750 (全局配置)

3750 (接口)

3850

对y的Mls qos  
map管辖DSCP  
x

只要接口有策略策略，请超出是传输，全局CLI将起作用[input 一表映射为超出和一个管制]

### 3750

```
Default policed-dscp map:
3750#show mls qos map policed-dscp
Policed-dscp map:
d1 : d2 0 1 2 3 4 5 6 7 8 9
```

```
-----
0 : 00 01 02 03 04 05 06 07 08 09
1 : 10 11 12 13 14 15 16 17 18 19
2 : 20 21 22 23 24 25 26 27 28 29
3 : 30 31 32 33 34 35 36 37 38 39
4 : 40 41 42 43 44 45 46 47 48 49
5 : 50 51 52 53 54 55 56 57 58 59
```



6 : 60 61 62 63

**User define policed-dscp map:**

```
3750(config)#mls qos map policed-dscp 0 10 18 24 46 to 8
```

```
3750#show mls qos map policed-dscp
```

Policed-dscp map:

```
d1 : d2 0 1 2 3 4 5 6 7 8 9
```

-----

```
0 : 08 01 02 03 04 05 06 07 08 09
```

```
1 : 08 11 12 13 14 15 16 17 08 19
```

```
2 : 20 21 22 23 08 25 26 27 28 29
```

```
3 : 30 31 32 33 34 35 36 37 38 39
```

```
4 : 40 41 42 43 44 45 08 47 48 49
```

```
5 : 50 51 52 53 54 55 56 57 58 59
```

```
6 : 60 61 62 63
```

Policy config:

```
class-map match-all policed-dscp
```

```
match access-group 2
```

```
class policed-dscp
```

```
police 8000 8000 exceed-action policed-dscp-transmit
```

**Attach the above policy at ingress:**

**Note : Mark down table can be used by policing and interface policing as long as exceed action is transmit**

## 3850

```
3850(config)#table-map policed-dscp
```

```
3850(config-tablemap)#map from 0 to 8
```

```
3850(config-tablemap)#map from 10 to 8
```

```
3850(config-tablemap)#map from 18 to 8
```

```
3850(config-tablemap)#map from 24 to 8
```

```
3850(config-tablemap)#map from 46 to 8
```

```
3850#show table-map policed-dscp
```

Table Map policed-dscp

```
from 0 to 8
```

```
from 10 to 8
```

```
from 18 to 8
```

```
from 24 to 8
```

```
from 46 to 8
```

```
default copy
```

```
3850#show policy-map policed-dscp
```

Policy Map policed-dscp

```
Class class-default
```

```
police cir percent 10
```

```
conform-action transmit
```

```
exceed-action set-dscp-transmit dscp table policed-dscp
```

## 示例10 : 与队列极限配置的Mls qos Enable (event)

**3750 (全局)**

**Mls qos队列集输出了1阈值1100 100 50 200 (队列极限)**

```
[1 - >queue-set 1 ,
```

```
1->first队列 ,
```

```
100 - >threshold 1 ,
```

```
100 - >threshold 2 ,
```

**3750 (接口)**

**3850**

接口设置队列集  
[默认是队列集1]

与排队操作的出口排队策略和问限制

50 ->保留缓冲区 ,  
200 ->最大门限]

## 3750

Global config:

```
mls qos srr-queue output cos-map queue 2 threshold 1 2
mls qos srr-queue output cos-map queue 2 threshold 2 3
mls qos srr-queue output cos-map queue 2 threshold 3 6 7
```

If no interface config, the queue-set 1 will be used:

```
3750#show mls qos queue-set 1
```

```
Queueset: 1
```

```
Queue : 1 2 3 4
```

```
-----  
buffers : 15 25 40 20
```

```
threshold1: 100 125 100 60
```

```
threshold2: 100 125 100 150
```

```
reserved : 50 100 100 50
```

```
maximum : 200 400 400 200
```

For interface config queue-set 2 explicitly:

```
3750#show mls qos queue-set 2
```

```
Queueset: 2
```

```
Queue : 1 2 3 4
```

```
-----  
buffers : 25 25 25 25
```

```
threshold1: 100 200 100 100
```

```
threshold2: 100 200 100 100
```

```
reserved : 50 50 50 50
```

```
maximum : 400 400 400 400
```

## 3850

(multiple class with queue-limit turn on)

```
3850#show policy-map q-limit
```

```
Policy Map q-limit
```

```
Class users-class
```

```
Queuing action ( shaper, bandwidth and bandwidth remaining)
```

```
queue-limit cos 2 percent 50
```

```
queue-limit cos 3 percent 50
```

```
queue-limit cos 6 percent 70
```

```
queue-limit cos 7 percent 70
```

Note: using the above config, cos 2 and cos 3 will be dropped earlier than cos 6 and 7

## 示例11 : 与队列缓冲区配置的Mls qos Enable (event)

3750 (全局)

Mls qos队列集输出[1]缓冲[15 25  
40 20]

3750 (接口)

接口设置队列集[默认队列集1]策略映射以排队操作和队列缓冲区比率[

3850

## 3750

Default queue-buffer :

```

3750#show mls qos queue-set 1
Queueset: 1
Queue : 1 2 3 4
-----
buffers : 25 25 25 25
threshold1: 100 200 100 100
threshold2: 100 200 100 100
reserved : 50 50 50 50
maximum : 400 400 400 400

User define queue-buffer:
mls qos queue-set output 1 buffers 15 25 40 20

```

```

3750#show mls qos queue-set 1
Queueset: 1
Queue : 1 2 3 4
-----
buffers : 15 25 40 20
threshold1: 100 125 100 60
threshold2: 100 125 100 150
reserved : 50 100 100 50
maximum : 200 400 400 200

```

## 3850

```

3850#show policy-map queue-buffer
Policy Map queue-buffer
Class cos7
bandwidth percent 10
queue-buffers ratio 15
Class cos1
bandwidth percent 30
queue-buffers ratio 25

```

```

class-map:
=====

```

```

3850#show class-map cos7
Class Map match-any cos7 (id 22)

```

```

Match cos 7

```

```

3850#show class-map cos1
Class Map match-any cos1 (id 28)

```

```

Match cos 1

```

```

Attach to the interface at egress direction:

```

## 示例12 : 与带宽配置的Mls qos Enable (event)

<b>3750 (全局)</b>	<b>3750 (接口)</b>	<b>3850</b>
<b>Mls qos (共享模式)</b>	接口级设置	在策略映射的带宽
	“Srr队列带宽共享1 30 35 5”	

## 3750

```

Default share and shape mode:
3750-3stack#show mls qos interface gig 1/0/1 queueing
GigabitEthernet1/0/1

```

```
Egress Priority Queue : disabled
Shaped queue weights (absolute) : 25 0 0 0
Shared queue weights : 25 25 25 25
The port bandwidth limit : 100 (Operational Bandwidth:100.0)
The port is mapped to qset : 1
```

User config share mode under interface:

```
interface GigabitEthernet1/0/1
srr-queue bandwidth share 40 30 20 10
srr-queue bandwidth shape 0 0 0 0
```

```
3750#show mls qos interface gig1/0/1 queueing
GigabitEthernet1/0/1
Egress Priority Queue : disabled
Shaped queue weights (absolute) : 0 0 0 0
Shared queue weights : 40 30 20 10
The port bandwidth limit : 100 (Operational Bandwidth:100.0)
The port is mapped to qset : 1
```

## 3850

```
3850#show policy-map bandwidth
```

```
Policy Map bandwidth
Class cos1
bandwidth percent 40
Class cos2
bandwidth percent 30
Class cos3
bandwidth percent 20
Class class-default
bandwidth percent 10
```

```
3850#show class-map cos1
```

```
Class Map match-any cos1
```

```
Match cos 1
```

```
3850#show class-map cos2
```

```
Class Map match-any cos2
```

```
Match cos 2
```

```
3850#show class-map cos3
```

```
Class Map match-any cos3 (id 26)
```

```
Match cos 3
```

```
3850#show class-map cos4
```

```
Class Map match-any cos4 (id 25)
```

```
Match cos 4
```

## 示例13 : Mls qos Enable (event)以优先级

3750 (全局)

Mls qos [expedite queue]

注意：加速队列同优先级队列一样

3750 (接口)

接口级设置“priority-queue” [make corresponding

queue-set's 1st queue as strict priority queue]

3850

在策略映射的Pri

1级

3750

```
interface GigabitEthernet1/0/2
priority-queue out
end
```

```
3750#show mls qos interface gig1/0/2 queueing
GigabitEthernet1/0/2
Egress Priority Queue : enabled
Shaped queue weights (absolute) : 25 0 0 0
Shared queue weights : 25 25 25 25
The port bandwidth limit : 100 (Operational Bandwidth:100.0)
The port is mapped to qset : 1
```

## 3850

```
3850#show run policy-map priority-queue
class cos7
priority level 1 ? strict priority
class cos1
shape average percent 10
Attach the above policy to interface at egress side:
```

## 示例14 : 与成型机配置的Mls qos Enable (event)

## 3750

```
Default shape mode:
GigabitEthernet1/0/3
Egress Priority Queue : disabled
Shaped queue weights (absolute) : 25 0 0 0
Shared queue weights : 25 25 25 25
The port bandwidth limit : 100 (Operational Bandwidth:100.0)
The port is mapped to qset : 1
```

### User define shape mode:

```
interface GigabitEthernet1/0/3
srr-queue bandwidth shape 4 4 4 4
```

```
3750-3stack#show mls qos interface gigabitEthernet 1/0/3 queueing
GigabitEthernet1/0/3
Egress Priority Queue : disabled
Shaped queue weights (absolute) : 4 4 4 4
Shared queue weights : 25 25 25 25
The port bandwidth limit : 100 (Operational Bandwidth:100.0)
The port is mapped to qset : 1
```

## 3850

```
3850#show policy-map shape
Policy Map shape
Class cos1
Average Rate Traffic Shaping
cir 25%
Class cos2
Average Rate Traffic Shaping
cir 25%
Class cos3
Average Rate Traffic Shaping
cir 25%
```

```
Class cos4
Average Rate Traffic Shaping
cir 25%
```

## 示例15 : 与带宽的Mls qos Enable (event)

**3750 (全局) 3750 (接口) 3850**  
MLS QOS Srr队列带宽限制 速度, 带宽

### 3750

```
interface GigabitEthernet1/0/4
srr-queue bandwidth limit 50
```

```
3750-3stack#show mls qos interface g1/0/4 queueing
GigabitEthernet1/0/4
Egress Priority Queue : disabled
Shaped queue weights (absolute) : 25 0 0 0
Shared queue weights : 25 25 25 25
The port bandwidth limit : 50 (Operational Bandwidth:50.0)
The port is mapped to qset : 1
```

### 3850

```
3850#show policy-map default-shape
Policy Map default-shape
Class class-default
Average Rate Traffic Shaping
cir 50%
service-policy child [ queuing based on customer need]
```

## 示例16 : HQoS

**3750 (全局配置) 3750 (接口) 3850**  
类映射, 对SVI的附上策略 PV入口策略  
策略映射 接口需要配置“vlan\_based的Mls qos”

### 3750

```
Note:
SVI: Parent [class acl based class-map->policing]

Child [class interface range class-map->marking]
```

#### Child class-map:

```
3750(config)# class-map cm-interface-1
3750(config-cmap)# match input gigabitethernet3/0/1 - gigabitethernet3/0/2
```

#### Child policy-map:

```
3750(config)# policy-map port-plcmap-1
3750(config-pmap)# class cm-interface-1
3750(config-pmap-c)# police 900000 9000 drop
```

**Parent class-map matching acl:**

```
3750(config)# access-list 101 permit ip any any
```

**Parent class-map:**

```
3750(config)# class-map cm-1
```

```
3750(config-cmap)# match access 101
```

```
3750(config)# policy-map vlan-plcmap
```

```
3750(config-pmap)# class cm-1
```

```
3750(config-pmap-c)# set dscp 7
```

```
3750(config-pmap-c)# service-policy port-plcmap-1
```

```
3750(config-pmap-c)# exit
```

```
3750(config-pmap)# class cm-2
```

```
3750(config-pmap-c)# service-policy port-plcmap-1
```

```
3750(config-pmap-c)# set dscp 10
```

**Attach the policy to the interface:**

```
3750(config)# interface vlan 10
```

```
3750(config-if)# service-policy input vlan-plcmap
```

## 3850

**Note: Due to target change, this can't be one to one mapping, need config based on customer requirement.**

**Target is at port level**

**Parent classify on vlan**

**Child: none vlan classification [for example cos/dscp]**

```
3850#sh run policy-map PV_parent_marking_child_policing
```

```
class vlan10
```

```
set dscp 63
```

```
service-policy child_class_dscp_policing
```

```
class vlan11
```

```
set cos 5
```

```
service-policy child_class_dscp_policing
```

```
class vlan12
```

```
set precedence 6
```

```
service-policy child_class_dscp_policing
```

```
3850#sh run policy-map child_class_dscp_policing
```

```
class dscp1
```

```
police cir percent 12
```

```
class dscp2
```

```
police cir percent 15
```

```
class dscp3
```

```
police cir percent 20
```

```
class class-default
```

```
police cir percent 22
```

```
3850#sh run class-map vlan10
```

```
class-map match-any vlan10
```

```
match vlan 10
```

```
3850#sh run class-map vlan11
```

```
class-map match-any vlan11
```

```
match vlan 11
```

```
3850#sh run class-map vlan12
```

```
class-map match-any vlan12
```

```
match vlan 12
```

```
3850#sh run class-map dscp1
class-map match-any dscp1
match dscp 1
```

```
3850#sh run class-map dscp2
class-map match-any dscp2
match dscp 2
```

```
3850#sh run class-map dscp3
class-map match-any dscp3
match dscp 3
```